

Mail Stop 4720

April 21, 2010

Marshall Woodworth
Vice President-Finance
Furiex Pharmaceuticals, Inc.
3900 Paramount Parkway, Suite 150
Morrisville, North Carolina 27560

**Re: Furiex Pharmaceuticals, Inc.
Information Statement on Form 10-12B, filed February 24, 2010
File No. 001-34641**

Dear Mr. Woodworth:

We have reviewed both your amended filing and your supplemental response and we have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

General

1. We have recently received your completed application for confidential treatment with respect to several of your material agreements. Please note that comments pertaining to this application will be sent under separate cover.
2. We note that your responses to prior comments 21, 28 and 39 state that there is information pertaining to these responses that you will provide in an amended filing. Please be advised that we will not be able to clear these comments until this information is included in your registration statement.

3. We note your statement on pages 11 and 54 that the Information Statement includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934. As Furiex is not subject to the reporting requirements of Section 13(a) or Section 15(d) of the Exchange Act, you are not eligible to rely on the safe harbor for forward looking statements. Please revise your disclosure to delete the references to Sections 27A of the Securities Act and 21E of the Exchange Act or revise to specifically state that the safe harbors do not apply to any forward looking statements in your document.

Risk Factors

“If PPD waives one or more conditions to the spin-off, it could adversely impact our operations . . .,” page 15

4. Please revise this discussion to describe the effect on your business if PPD waives the condition that you receive all permits, registrations, clearances and consents.

The Spin-Off

Distribution Conditions and Termination, page 36

5. We note your response to prior comment 12. Your disclosure on pages 36 and 37 is inconsistent in that it says the Board may waive any of these conditions on its sole and absolute discretion assuming the SEC has declared the Form 10 effective. Please note that the one of the conditions is that the Form 10 is effective. Additionally, please explain how you will complete the spin-off if there is an order, injunction or decree prohibiting or preventing the consummation of the spin-off.

Our Business, page 39

6. We note your response to prior comment 16 which states that you have edited the chart on page 41 to remove Priligy from the column “Submission of Marketing Application” for the United States, and we further note the inclusion of a footnote explaining the disposition of the NDA filed in December 2004. However, as that particular bar in the chart still continues into the column titled “Submission of Marketing Application,” please clarify for us whether this was inadvertent or whether a new marketing application for Priligy has been submitted. If the latter, please revise your disclosure to clarify that an application was submitted despite the earlier not approvable letter.

Our Pipeline, page 43

7. Please provide your bases for the following estimates included in your disclosure:

- “approximately 29 million men in the U.S. between the ages of 25 and 80 suffer from premature ejaculation;”
- “IBS-d affects approximately 29 million Americans age 15 and older;” and
- “the worldwide market for antibiotics to treat MRSA is approximately \$1.5 billion annually.”

To the extent these estimates are based on information obtained from third-party sources, please describe the information you have used from them and explain how you have used it in developing your estimates. As an example, with respect to the estimate concerning the number of Americans affected by IBS-d, describe the information you obtained from the market report from Nature Reviews Drug Discovery and how you used it to calculate your estimate.

Our Patents and Other Proprietary Rights, page 47

8. Please confirm that the patents held in each of the countries identified relate to Priligy.

Government Regulation, page 49

9. Please expand your discussion of the regulatory requirements imposed on you by the European Union. Based on the fact that your sole commercial product at this time is being sold only in Europe and your statement that the EU is your most important market outside the United States, these regulatory requirements appear material.

Management’s Discussion and analysis of Financial Condition and Results of Operations
Executive Overview, page 54

10. Refer to your response to prior comment 33. Your revised discussion appears to only address the range of estimated expenses necessary to develop projects with in-licensed compounds from Janssen. While we acknowledge the uncertainties in the estimate, if available, please also disclose the estimated timing of deriving cash in-flows from these projects. In addition, ensure that your discussion include all other major projects.

Combined Financial Statements of Furiex Pharmaceuticals, Inc.

1. Summary of Operations and Significant Accounting Policies:

Revenue Recognition, page F-9

11. We acknowledge your response to prior comment 40. Please clarify your revenue recognition policy for upfront payments.

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As appropriate, please amend your filings in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. Please file your cover letter on EDGAR under the form type label CORRESP. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that,

- the company is responsible for the adequacy and accuracy of the disclosure in the filings;
- staff comments or changes to disclosure in response to staff comments in the filings reviewed by the staff do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

Marshall Woodworth
Furiex Pharmaceuticals, Inc.
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You may contact Keira Nakada at (202) 551-3659 or Donald Abbott at (202) 551-3608 if you have questions regarding comments on the financial statements and related matters. Please contact Scot Foley at (202) 551-3383 or Suzanne Hayes at (202) 551-3675 with any other questions.

Sincerely,

Jeffrey P. Riedler
Assistant Director

cc: Alexander M. Donaldson, Esq.
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